## Data Acquisition in Noisy Environments, Phase I

Completed Technology Project (2005 - 2005)



## **Project Introduction**

The ability to capture and record the low-level signals in the noisy environments typical of manned and unmanned space exploration missions will prove an invaluable tool in the monitoring of spacecraft health and the operation of spacecraft instrumentation. The technology now exists to create a miniaturized, low-power integrated data acquisition system capable of capturing these signals and making them available to spacecraft operators through on-board control and communications resources. Using our extensive experience and expertise in miniaturized embedded data acquisition systems, Tanner Research propose to develop a new class of data acquisition devices capable of capturing and recording spacecraft health and status information throughout the spacecraft's mission. The system will be capable of acquiring information at various rates and qualities, based on direct user input (controls) and system status. Prototype hardware will be delivered at the end of Phase I and a evaluation versions of production-quality prototypes will provided at the end of the follow-on Phase II.

### **Primary U.S. Work Locations and Key Partners**



Organizations Performing Work	Role	Туре	Location
☆Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Tanner Research Inc	Supporting Organization	Industry	Pasadena, California



Data Acquisition in Noisy Environments, Phase I

## **Table of Contents**

Project Introduction	
Primary U.S. Work Locations	
and Key Partners	1
Organizational Responsibility	
Project Management	
Technology Areas	2

# Organizational Responsibility

# Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

#### **Lead Center / Facility:**

Johnson Space Center (JSC)

#### **Responsible Program:**

Small Business Innovation Research/Small Business Tech Transfer



## Small Business Innovation Research/Small Business Tech Transfer

# Data Acquisition in Noisy Environments, Phase I



Completed Technology Project (2005 - 2005)

Primary U.S. Work Locations		
California	Texas	

## **Project Management**

**Program Director:** 

Jason L Kessler

**Program Manager:** 

Carlos Torrez

**Principal Investigator:** 

Kevin Dinniene

# **Technology Areas**

#### **Primary:**

- TX02 Flight Computing and Avionics
  - □ TX02.2 Avionics Systems and Subsystems
    - □ TX02.2.8 Use of Advanced Commercial- off-the-Shelf (COTS) Technologies

